

### Abstract of the disclosure

The invention provides modified recombinant nucleic acid sequences (preferably DNA) and methods for increasing the mRNA levels and protein expression of  
5 proteins which are known to be, or are likely to be, difficult to express in cell culture systems, mammalian cell culture systems, or in transgenic animals. The preferred "difficult" protein candidates for expression using the recombinant techniques of the invention are those proteins derived from heterologous cells preferably those of lower organisms such as parasites, bacteria, and virus, having DNA coding  
10 sequences comprising high overall AT content or AT rich regions and/or mRNA instability motifs and/or rare codons relative to the recombinant expression system to be used.

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